Paik/Abe synthesizer

This document archives Facebook threads from the Video Circuit group, so that they might be slightly less fragile. I have removed appreciative and inquisitive posts in order to condense the material to the core information, and have also corrected some spellings.

-- Robin Parmar, 22 December 2019

https://www.facebook.com/photo.php?fbid=10217993864055427

Joost Rekveld

Does anyone know more about it?

It looks very similar to this machine, but I always thought the Paik/Abe synthesizer was something else:

https://www.ntticc.or.jp/en/feature/2014/Openspace2014/Works/Abe_Video_Synthesizer.html

It is probably the exact same machine as on this picture of Jim Wiseman here, so it was in the ETC studio and it apparently ended up at SAIC ?

Chris King

There is in my opinion some confusion about what is referred to as the "Paik/Abe" the 7 level encoder based colouriser you see here is what I consider the "Paik/Abe" proper, the larger systems that incorporate one of these plus signal generators, camera sources and wobbulator rescanned are also sometimes referred to as "Paik/Abe" (although happy to be corrected) :)

Paik and others built this design in classes and Dave Jones also modified the ones built at ETC.

We have the big blue upright one at work at the moment as part of the big Paik show, its non functional but its one you see quite often in exhibitions I think.

"This exhibition will also travel to the Stedelijk Museum (March 2020–August 2020), Museum of Contemporary Art, Chicago (November 2020–January 2021), SFMOMA (March 2021–July 2021), and the National Gallery Singapore (September 2021–January 2022)"

Christian Michael

It makes sense. I can't imagine them taking the time to completely redesign the wheel and do more than what's on the panel here since a lot of the other stuff they would be using it with was at least adequate for the application without that much customization.

Are any of the extant PAVSs in working condition and accessible to nerds unaffiliated with universities/museums/institutions?

Jim Wiseman

We took the upright one from CalArts on a tour of the midwest in 1972, I believe. SAIC was one stop where Phil Morton, head of the video dept there recruited me to do my MFA there. Also Walker Art Center in Minneapolis, University of Minnesota, and Southern Illinois University. This machine was built by myself, Jim Wiseman and has never been affiliated with another institution, always in my possession, until the current donation to SAIC.

Chris King

An Evening of Paik-Abe Synthesizer with Mr.Shuya Abe

SOURCE: https://youtu.be/CwHgUy0kpHA

A few modern versions have been built in Japan and Korea as part of the same project.

Jim Wiseman

How wonderful to see Abe-San! Thank you Chris. I last saw him and spent the day with him in 2008. Never thought I would see him again except in still photos. An amazing man and my Master, Japanese style. I was the grateful student.

Sherry Hocking

That device was never a part of the ETC system. The first Paik Abe Video Synthesizer was begun in 1972. This one was the first installed in the ETC system and used for many years.

Walter Wright

demonstration of the Paik Abe, 1974.

VIDEO SYNTHESIS

WORKSHOP/PERFORMANCE

BY

WALTER WRIGHT
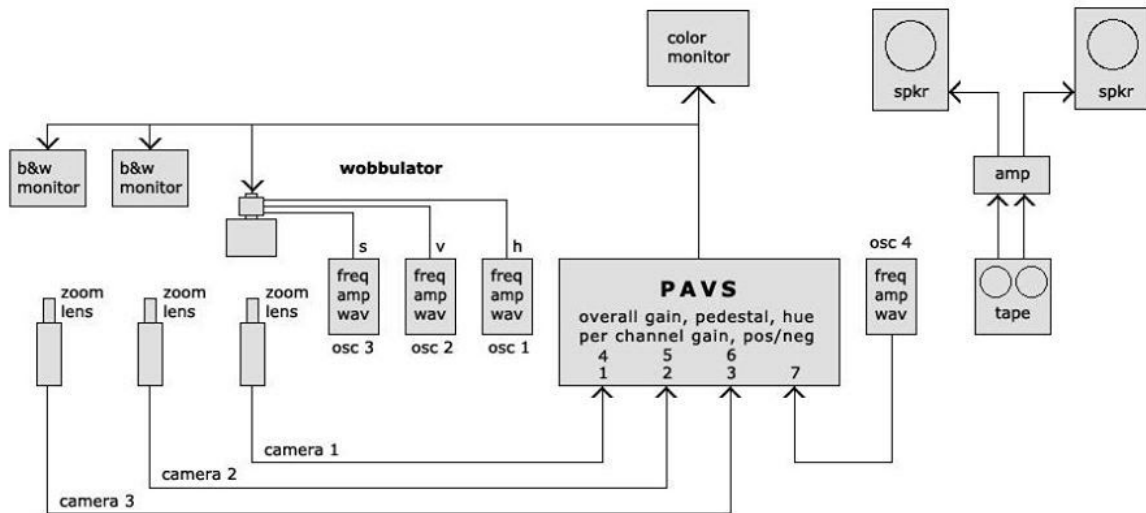ARTIST IN RESIDENCE AT THE
EXPERIMENTAL TELEVISION CENTER

MONDAY, APRIL 7th at 3:00 P.M.   Lecture Hall 6

TUESDAY, APRIL 8th
     and   - 1:00 - 5:00 P.M. & 7:00-9:00 PM.
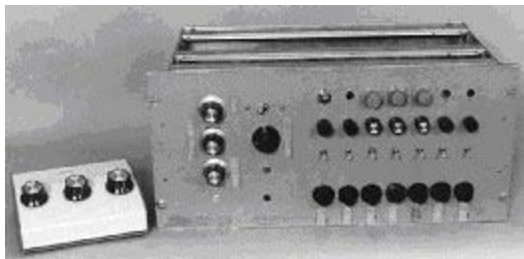WEDNESDAY APRIL 9th   in Cinema Studio B 93

PAVS

Paik Abe Video Synthesizer

RGB Summing Matrix

Magnetic Scan Processor or Wobbulator

Walter Wright Nam June Paik & Shuya Abe

Sherry Hocking

The ETC studio in 1976 - you can see that PaikAve as part of that iteration of the system.

The documents and correspondence relating to ETC support for the development of the Paik/Abe and it's use in the Residency program here are now at the Rose Goldsen Archive of New Media Art at Cornell University.

Kyle Werle

It was a donation from Jim Wiseman and was repaired by William Howell for the Art and Technology Studies department at SAIC. It is real pretty!

Sherry Hocking

The original Paik machines were usually not so pretty. The SAIC one is lovely...

Kyle Werle

We have another full Sandin IP to the right as well

Chris King

Kyle Werle thanks for the info, glad to see the new ip is bedding in and has good company, what are the wall mounted units on the right?

"After Altamont, I decided to do something different than rock and roll, and applied to the California Institute of the Arts (Cal Arts), in Los Angeles. There I met Nam June Paik, the "father of video art" and immediately began two years of work with him and Shuya Abe, which resulted in a BFA and a self-constructed copy of their Paik/Abe Video Synthesizer. This was the first device capable of manipulating, abstracting, and colorizing multiple layers of video images in real time, and was operated much as one would play a musical instrument. From Cal Arts, I was accepted into the School of the Art Institute of Chicago, where I worked with Dan Sandin, built his Image Processor, and earned my MFA."

SOURCE: http://www.jimwiseman.com/bio.php

Kyle Werle

Those are analog semi modular audio synthesizers designed by one of the ATS department's founders, Steve Waldeck. We are currently restoring them. 3 are currently functional.
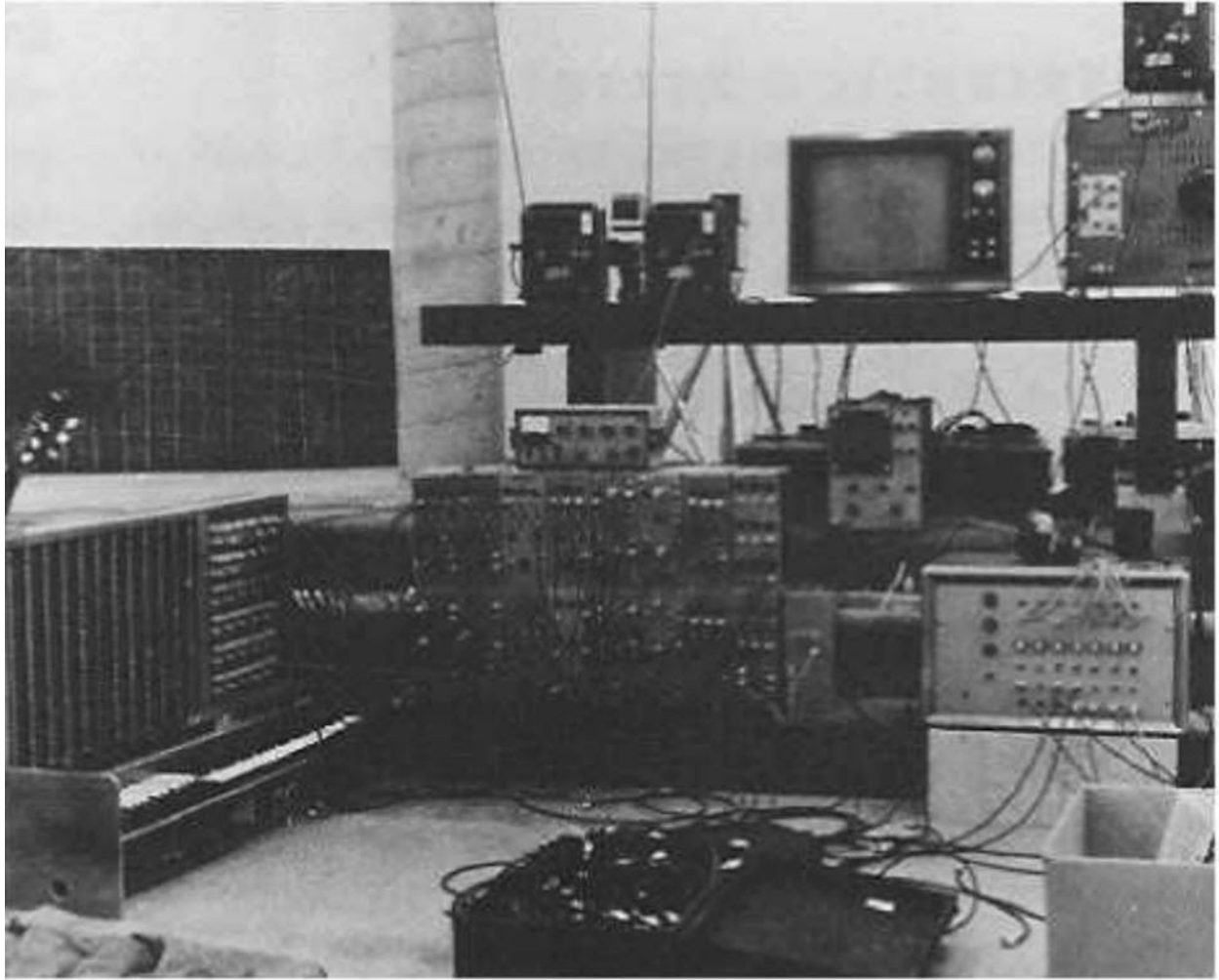
Jim Wiseman

Thank you. I'm very happy where it ended up and am anxious to see what students can do with it and the Sandin which I used primarily for pre processing, especially for video feedback and oscillator input. Also had some amplification circuitry for enhanced voltage control of the Sandin Adder multipliers ahead of the P/A. BTW, I built it and it has always been in my possession until I donated it to the School of the Art Institute this year, 2019.

Daniel Sandin

"In Consecration of New Space," a collaborative performance incorporating live composition of images on the Dan Sandin Image Processor and the Paik-Abe Synthesizer, University of Illinois at Chicago, Chicago, IL, January 1973.

The box at the lower right is the same one as SAIC has. It was built by Jim Wiseman. Jim would be the authority, but as with the IP there were copies made of the Paik-Abe Synthesizer.

In the show Jim performed on the Paik-Abe and input signals came from cameras and from the IP. I performed on the IP along with others.

Jim Wiseman

I donated my systems recently to the Art and Technology Program at the School of the Art Institute of Chicago where I earned my MFA in 1974 while also working as a producer at WTTW-TV PBS, Chicago. I also donated 11 modules of the Sandin Image Processor which I built there while collaborating with Dan Sandin. They will be available in perpetuity to students at SAIC. The Paik/ Abe was one of the first devices known as a video synthesizer and was designed and built for WGBH with a Rockefeller Grant in the mid-to late-60's. It was also built a short time later for WNET, PBS in New York. One was also built for CalArts in Los Angeles where I got my BFA studying with Nam June Paik and Shuya Abe where they were teaching in 1970 when I arrived at the opening class of the school. I earned my BFA studying video art with them from 1970-1972 working with their synthesizer. I built this copy there and have kept it working since. There are only my copy now at SAIC and possibly 1 or 2 others still working in prime condition. Mine has been constantly maintained.

BTW it was largely the conception of Paik and Shuya Abe, but Abe-San was the electronic genius behind the design and construction of the original units. He was also a much better artist than Nam June in the actual creation of wonderful images with the device. I spent many incredible hours with him creating them and became what I would call an excellent artist with the device because of that.

Sherry Hocking

Thanks for your words Jim. Shuya was definitely the technological master. At ETC, Paik used to run the vacuum while Abe worked on the Paik/Abe. Paik said it was soothing to Abe...

Jim Wiseman

Nam June was actually more of a conceptual artist at this time. Later his video sculptures became very famous and of course were exhibited at the one man Guggenheim show and many others. They even made it out to Honolulu on Oahu.

I have lived on Kauai for the last 30+ years. I am doing more digital photography now. My early work is available on my website http://www.jimwiseman.com along with a good version of my bio under "about the artist". The Honolulu Museum of Art published an edition of their then annual calendar with my Rock and Roll photos on stage with Jimi Hendrix, Grateful Dead, Who, etc. A very large format edition of it (the only) of 1000 copies was printed by the best lithography house in Germany at that time. It was all based on large photos almost full page with a small unobtrusive calendar for each page run along the bottom of each page, one photo per month plus cover. It was published by the Honolulu Museum of Art. I can add more details later size (very large for a calendar) year, printer in Germany, etc. My website was created at the time of the calendars release and is mainly about my early photography including my random double exposure 35mm Nikon photos. They were the portfolio that got me into CalArts on one interview in 1969 or early '70. Under Art Images on my Website Home page.

Trying to get everything organized for preservation now. Early video art, documentaries for WTTW PBS Chicago, and of course the art photography before and since. I will be 72 in December. So there is some pressure. Thanks for your comments, and of course, to Chris for this great FB page. Sorry for the repeats will edit later. Working from several documents and wanted to get this out.

Sherry, I believe after all my time with both, that Abe was a much better artist with the Paik/Abe synthesizer than Nam June. Not just technology. He had the full insight of what the device was capable of and was incredibly sensitive in inimitable Japanese manner with it. It was amazing to watch him then. Nam June was the front man who attracted the attention and didn't really come into his own until the sculptures, in my opinion. He almost always directed collaborators. My aesthetic really developed from Abe-San. His imagery was superb even if only a few of us ever saw it usually alone with him at CalArts.

Sherry Hocking

Your reflections on Abe are much appreciated. I share your feelings completely. In my thinking, when referring to Abe as a technologist that encompasses a highly evolved aesthetic sensibility. At that time, Paik was to my mind more a ring-master. He told us many times that even though a particular piece was very dependent on the ideation and craft of other artists and collaborators, he (Paik) would take "all credit". We used to call him the PT Barnum of video... more sensible than George Washington in my opinion.

Jim Wiseman

The Honolulu Museum of Art the primary museum in Hawaii. https://honolulumuseum.org Publisher of the calendar of my early R&R photos.

Also the location of the Nam June Paik video and sculpture exhibit.

Dave Jones

Here's my understanding of the history of the Paik/Abe synthesizer. I wasn't there during the early years, so that part is based on stories that I heard. I came along a couple of years later.

My understanding is that the first Paik "synthesizer" was assembled at WGBH in Boston around 1969 or 1970. It was not the same as what later became known as the PAVS. It was a couple of racks of commercial video equipment, including a couple of RGB color encoders and mixers, and a modified TV set which we at the TV Center later would dub a "wobbulator".

A couple of years later (1972?) Nam June and Shuya Abe came to ETC in Binghamton and Shuya assembled the first of the PAVS units (Paik/Abe Video Synthesizer). That one was intended for WNET in NYC. Paik used it at ETC to create his first videos with that system.

Abe built a second one which was installed at ETC, and remained in the studio for many years. Over the next few years Abe then built several more of them, back in Japan. I don't know the total number, but suspect about 10 or 12 were made.

All of those had the same basic design. A set of special amplifiers that Abe designed, which fed into an RGB encoder (pulled from a Sony color camera) and mixing into the R, G, and B in varying amounts to create different colors on the seven channels. Controls from the encoder were extended to the front panel to adjust hue, saturation, contrast, and brightness. Each of the seven inputs had a level control and an on/off switch.

There were then some variations from unit to unit that included things like patching to change which channel went to which color on the encoder.

I further modified a couple of the ones that Ralph and ETC had to add rotary switches on one to select different colors for the different channels, and added balance knobs to allow adjusting a blend of the colors for the channels that were going to multiple colors on the encoder. For

example one channel was going to both R and G to create yellow, while another went to R and B to create magenta. The edded knobs on those allowed you to balance the signal between the R and G, for example.

The "wobbulator" that was part of the original system at WGBH was also duplicated at ETC by Ralph Hocking and Walter Wright. I then built a couple of more copies a couple of years later. Plus oversaw the building of one by Jason at Signal Culture a couple of years ago.

Also, the system at ETC, when the PAVS was added, included a luminance keyer that Abe had built. It was a separate device that looked sort of like a commercial SEG (but home made).

https://www.facebook.com/photo.php?fbid=2563628981262

Jim Wiseman

Here is the West Coast control room for the Satellite Arts Project organized by Kit Galloway and Sherrie Rabinowitz in 1977. I was the Technical Director and was responsible for integrating all of the stuff in this photo with the uplink in Menlo Park. NASA gave us access to the satellite. It was the first time artists had the use of satellite technology for an art project. We had dancers there and in Maryland at another NASA facility dancing together in real time. You can see a split screen of the two locations in the right foreground. Bill Hearn and I did video effects with our

synthesizers of the two feeds. My synthesizers are on the left foreground from the Paik/Abe (large grey box) to the left where there are the Sandin Image Processor modules. Bill's is the system with the patch cords to the right. Paul Horn also came in and played flute with his own satellite delay (speed of light to Maryland and back, 1/2 second) much as he did on his Taj Mahal recording. Photo by Richard Lowenberg who also contributed greatly to this piece.

This popped up as today's Memory on my timeline. First access by artists to satellites as an art form. I was technical director and video synthesizer artist. We thought satellites would change the way the world works, and to an extent they have, though dominated by commercial interests. Lets not let that happen to the Internet.

https://www.facebook.com/groups/VIDEOCIRCUITS/permalink/1918734134847920/

Dave Jones

That looks like a Paik-Abe Colorizer in the lower center, to the left of the Hearn VideoLab.

Chris King

And some racks of sandin ip modules next door??

Joost Rekveld

Amazing projects, wonder if there is still video footage of them?

Chris King

Yes!

SOURCE:

https://www.worldcat.org/title/satellite-arts-project/oclc/123943668

"From the mid-1970s to the 1990s, the Long Beach Museum of Art provided invaluable support to the growing video art field by exhibiting, co-producing and collecting video art. The museum's official video program began in 1974 under the direction of David Ross, who later became the director of the San Francisco Museum of Modern Art. The Long Beach Museum of Art was among the first to focus on video as an artistic medium, spurring similar efforts throughout the United States. Beginning in 1974, the museum began collecting and exhibiting video art, developing one of the most creative and ambitious video exhibition programs in the world. The museum actively encouraged the development of video art by offering editing facilities to artists, and pursued innovative approaches to the display of video art, including several experiments with broadcast television. VDB's holdings represent a few of the titles that were produced in this period.

"In 1976 Mr. Ross, working with a Rockefeller Foundation grant, opened a postproduction art video studio — the first in Southern California — and invited artists to work with its cameras, equipment and editors, initially free of charge. Over the years, and long after Mr. Ross's departure in 1978, a striking roster of videos was produced there, including Ms. Rosler's "Vital Statistics of a Citizen, Simply Obtained" (1977), a critique of the objectification of women; Jim Shaw's psychedelic fantasy "Billy Goes to a Party #4" (1987); "Family Tyranny" and "Cultural Soup," hilariously disturbing familial dramas enacted in 1987 by Paul McCarthy with Mike Kelley; and the Kipper Kids video. A copy of almost everything that was ever shown, produced or edited at Long Beach went into its archives. Along the way it also absorbed the video holdings of the storied Woman's Building, a feminist arts center in Los Angeles that closed in 1991."

- Carol Kino, "The Getty Gets Serious about Video" New York Times (December 9, 2007)

In 2005 the Getty Research Institute acquired the video collection of the Long Beach Museum of Art. "

Satellite Arts Project, 1977

SOURCE:

http://www.ecafe.com/getty/SA/

Ryan Schweitzer

This is awesome to see, I remember reading about the Satellite Arts Project when I first visited Kit Galloway and Sherrie Rabinowitz's website for their Electronic Cafe International in LA after hearing an NPR news story about them and their "e-cafe", the site mentioned this project on a page there about their previous projects.

I wonder if the Satellite Arts Project used the same satellite as Keith Sonnier's "Send/Receive Satellite Network" piece he created also in 1977, which was uplinked from coast to coast as well using the experimental CTS (Communications Technology Satellite), also known as the "Hermes" satellite, which kept up and downlinking away until 1979, when it gave up the ghost after 3 years of operation.

Hermes/CTS was launched in 1976 as an experimental and collaborative development between NASA, Canada's CRC, and the ESA (who provided the solar panels). It was a technology test bed satellite, it was the first to offer high-power small-receive-dish DBS style communications due to its higher frequency (first satellite to use the "Ku" microwave band, earlier sats used (and

some newer sats still use) the "C"-band at a lower power requiring a much larger transmit or receive dish), which would be adopted by later DBS providers like DishNetwork, DIrecTV, ExpressVu, SkyTV, et al, about 2 decades later.

I believe NASA had a mobile video uplink bus for CTS used for Sonnier's piece (and makes an appearance in it) that was based from their Lewis (now Glenn) Research Center.

I'm such a space nerd :D. Here's some links about Keith Sonnier's project, which, IIRC, explores some of the same concepts/experiments of satellite video communication as the Satellite Arts Project--maybe his piece had some affiliation to them?

http://sendreceivesatellitenetwork.blogspot.com/

http://www.vdb.org/titles/sendreceive-i-and-sendreceive-ii

And a Wikipedia dossier of CTS:

https://en.wikipedia.org/wiki/Communications_Technology_Satellite

https://www.facebook.com/photo.php?fbid=1279545959989

Jim Wiseman

Me with video synthesizers I constructed. On the set of "Secret Life of Plants" in Hollywood in

1978. Feature film with soundtrack album by Stevie Wonder, for which it is mostly known. Synthesizers are Paik/Abe 1970-72 and Sandin '74, and were connected by biofeedback sensors to plants and dancers on the set. With Richard Lowenberg and John Lifton. — with Cyclorama, Tree Fern, Sandin Image Processor, Paik/Abe synthesizer and Nam June Paik.

The Paik/Abe was probably the first synthesizer strictly designed for video image manipulation. It was developed at WGBH PBS in Boston under the direction of Nam June Paik (world famous, one man Guggeheim exhibit,"George Washington of video art" look him up) and designed by Shuya Abe, a true genius at the intersection of art and technology. They were my mentors at CalArts, the Disney school, 1970-72. From there I went to the Art Institute of Chicago and worked with Dan Sandin from UI Chicago Circle campus and built his modular synthesizer on the left. Another true pioneer. The Paik/Abe, on the right with the colored knobs, in this configuration, was the mixer and colorizer. Ah, if we had only had flat panel TV's then, I might have had a different career!

Furthest on the left is a Serge Tcherepinin

https://www.facebook.com/photo.php?fbid=3262420290608

Jim Wiseman

Me at Satellite Arts Project with Paik/Abe and Sandin video synthesizers, November,1977

First access to satellite by artists.